



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

646.3316

Job Sheet 194919



Part No: 646.3316

Job Qty: 20 pcs *30*DAS
21
9-55

Part Name: Blade



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 5/10/19

Job Tracking No:

Due Date: 6/24/19 *or sooner*

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV A SHEET 10 IPP REV:A NEW ISSUE 12/11/07 JFS VERIFY BY: JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Bandsaw - 1	20 pcs		6/24/19	0.00	0.18	Bandsaw - 1		<i>mark 14/06/20</i>
110	HAAS 4 Axis - B4B	20 pcs		6/24/19	0.00	21.74	HAAS - 1 - B4B		<i>mark 14/06/20</i>
							HAAS - 2 - B4B		
							HAAS - 3 - B4B		
							HAAS - 4 - B4B		
120	QC 2	20 pcs		6/24/19	0.00	0.00	QC 2 - 1		<i>mark 14/06/20</i>
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		



Container No: S192284



Part: 646.3316

Job No: 194919

Serial No/Batch: S192284

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 06/20/19

130 QC 8	20 pcs	6/24/19	0.00	0.00	QC 2 - 63	
					QC 2 - 8	
					QC 2 - 66	
					QC 2 - 64	
					QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 8 - 12	
					QC 8 - 14	
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
140 Outsource - 1 - Heat Treat	20 pcs	6/24/19			QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	Kt 19-06-20
					QC 8 - 47	
					QC 8 - 40	
					QC 8 - 52	
150 Packaging 2-1 - Receive - B4B	20 pcs	6/24/19	0.00	0.00	QC 8 - 23	
					MEI001-VC	15 2019-06-21
					Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	DP JUL 05 2019
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 -	

				B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
155	QC 5	20 pcs	6/24/19	0.00 0.00	QC 5 - 10
					QC 5 - 12
					QC 5 - 17
					QC 5 - 18
					QC 5 - 19
					QC 5 - 22
					QC 5 - 24
					QC 5 - 3
					QC 5 - 43
					QC 5 - 49
					QC 5 - 51
					QC 5 - 58
					QC 5 - 68
					QC 5 - 9
					QC 5 - 50
					QC 5 - 30
					QC 5 - 40
160	Spray Paint - 2 - B4B	20 pcs	6/24/19	0.00 0.67	Spray Paint - 1 - B4B
					Spray Paint - 2 - B4B
					Spray Paint - 3 - B4B
					Spray Paint - 4 - B4B
170	QC 14	20 pcs	6/24/19	0.00 0.00	QC 14 - 15
					QC 14 - 2
					QC 14 - 34
					QC 14 - 41
					QC 14 - 51
					QC 14 - 58

DAS
61
9-89

• AS 19-7-9

						QC 14 - 59	
						QC 14 - 9	
						QC 14 - 68	
						QC 14 - 40	DAS
						QC 14 - 19	81
						QC 14 - 43	9-89
						QC 14 - 24	
							JUL 10 2019
180	Packaging 3-1 - Stock - B4B	20 pcs	6/24/19	0.00	0.00	Packaging 3 - 1 - B4B	
						Packaging 3 - 2 - B4B	
						Packaging 3 - 3 - B4B	
						Packaging 3 - 4 - B4B	
						Packaging 3 - 5 - B4B	
						Packaging 3 - 6 - B4B	
						Packaging 3 - 7 - B4B	
						Packaging 3 - 8 - B4B	
						Packaging 3 - 9 - B4B	
						Packaging 3 - 10 - B4B	
						Packaging 3 - 11 - B4B	
						Packaging 3 - 12 - B4B	
						Packaging 3 - 13 - B4B	
						Packaging 3 - 14 - B4B	
						Packaging 3 - 15 - B4B	
						Packaging 3 - 16 - B4B	
						Packaging 3 - 17 - B4B	
						Packaging 3 - 18 - B4B	
						Packaging 3 - 19 - B4B	
						Packaging 3 - 20 - B4B	
						Packaging 3 - 21 - B4B	
						Packaging 3 - 22 - B4B	
						Packaging 3 - 23 - B4B	PC CCK#02
						Packaging 3 - 24 - B4B	
						Packaging 3 - 25 - B4B	
						Packaging 3 - 26 - B4B	
						Packaging 3 - 27 - B4B	
						Packaging 3 - 28 - B4B	
						Packaging 3 - 29 - B4B	
						Packaging 3 - 30 - B4B	
						Packaging 3 - 31 - B4B	
						Packaging 3 - 32 - B4B	
						Packaging 3 - 33 -	

				B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
190 QC 21 - SA	20 pcs	6/24/19	0.00 0.00	QC 21 - SA - 21	21
				QC 21 - SA - 70	9-30
				QC 21 - SA - 53	

Part Op 100 - Bandsaw - Cut Blank at 6.000"

Descriptions: 110 - HAAS CNC Vertical Machine - 1-Machine per folio FB147

120 - QC2- Inspect parts off machine FAI/FAIB

130 - QC8- Inspect parts - second check

140 - HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED

150 - Receive & Inspect for Damage & Mat'l Certs

160 - Spray Paint / NDT Room - PRIME AS PER DWG, SEE NOTE #4 5195271

170 - QC14- Inspect Spray Paint

180 - Identify as per dwg & Stock Location: _____ ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

190 - QC21- Final Inspection - Work Order Release

JUL 10 2019

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MSTEEL-A2-B0.500X1.250	AISI A2 Tool Steel Bar, 0.500 X 1.250	10 ft (.5 ea)	100-Bandsaw - 1	5172910

MAT
used
15.125

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Bandsaw - 1	MSTEEL-A2-B0.500X1.250	10	67	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Blade	5.870inches ± 0.005	5.875 5.865		
2	Blade	4.750inches ± 0.005	4.755 4.745		
3	Blade	0.940inches ± 0.005	0.945 0.935		
4	Blade	0.524inches ± 0.005	0.529 0.519		
5	Blade	0.240inches ± 0.002	0.242 0.238		
6	Blade	0.694inches ± 0.002	0.696 0.692		
7	Blade	1.250inches ± 0.002	1.252 1.248		
8	Blade	0.177inches + 0.005 - 0.001	0.182 0.176	Diameter	
9	Blade	40.000Degrees ± 0.500	40.500 39.500	Angle	
10	Blade	0.375inches ± 0.005	0.380 0.370		
11	Blade	0.325inches ± 0.005	0.330 0.320		
12	Blade	30.000Degrees ± 0.500	30.500 29.500	Angle	

Plex 5/10/19 9:02 AM Dart.lajeunesse.marie

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043823



Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

Attention: Bejenaru, Livia

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043823
PO Date: 6/21/19
Due Date: 7/18/19
Purchase Order Revision:
Revision Date:
Ship-To Contact: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground
Pymt Terms: Net 30

Freight Terms:
Special Comments:

E-MAILED
2019-06-04

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	193895	C3-12-3	Lock - C3 Hook (Outsource process - Heat Treat) 1--Issue P/O to Metcore ; P/O _____ RC 44-46 2-Bead blast 3- Certificate of Conformity is required Material 4140	Firmed -		7/18/19	20 pcs	0 pcs	20 pcs	\$15.50/pcs	\$310.00
2	194919	646.3316	Blade : Various STC's HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED	Firmed -		7/18/19	30 pcs	0 pcs	30 pcs	\$9.1333/pcs	\$274.00
3	188725	C10-5	Load Beam (Outsource process - Heat Treat) 1--Issue P/O _____ RC 53-56 Material; 4140 2-Bead blast 3- Certificate of Conformity is required	Firmed -		7/18/19	1 pcs	0 pcs	1 pcs	\$310.00/pcs	\$310.00
Grand Total:											\$894.00



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PURCHASE ORDER

POHB043823



Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 6/24/19 8:28 AM Dart.Guerin.Kimberley

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Reçu de livraison

Delivery Receipt

BON DE TRAVAIL Order	EXPÉDITEUR Shipper ID	BON D'EXPÉDITION Shipper
337546	1	138441

EXPÉDITION COMPLÈTE / Shipped Complete

CLIENT /Customer 215

DART AEROSPACE

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

LIVRÉ À /Shipped To

DART AEROSPACE

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053



COMMANDE DU CLIENT Customer PO	BON DE LIVRAISON DU CLIENT Customer Shipper No.	TYPE DE MATÉRIEL Material Type	DATE DE LA COMMANDE Order Date	TRANSPORTEUR Carrier
HB043823		A2	2019/6/21	CLIENT

QUANTITÉ Quantity	No. PIÈCE Part No.	NOM DE LA PIÈCE Part Name	DESCRIPTION DE LA PIÈCE Part Description	POIDS Weight
30	646.3316		DAS 61 9-88	12,
	(30) 646.3316			
	JOB 194919			

1 BOITE DE CARTON

TYPE DE CONTENEUR Container Type	# DE CONTENEURS # Of Containers	COMMENTAIRES CONTENEUR Container Comments
BOITE DE CARTON	1	

CERTIFICAT

EXPÉDIÉ PAR: Shipped by:	
-----------------------------	--

RECEIVED

JUL 05 2019

DART AEROSPACE LTD.

QUANTITÉ EXPÉDIÉE / Quantity Shipped : 30
POIDS EXPÉDIÉ / Weight Shipped : 12,00
QUANTITÉ RESTANTE / Quantity Remaining : 0
POIDS RESTANT / Weight Remaining : 0,00

APPROUVÉ

CERTIFICAT

QUANTITÉ EXPÉDIÉE / Quantity Shipped:	30
POIDS EXPÉDIÉ / Weight Shipped :	12,00

Signature:

Date:

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
337546	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
HB043823	N/A	A2		
SPÉCIFICATIONS DU PROCÉDÉ processing specifications VAC HARDEN HARDEN AND TEMPER DAS 61 9-89				
EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results	
HARDNESS	58 - 62 HRC	30 (907)	58 - 60 HRC	
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
30	12	646.3316 (30) 646.3316 JOB 194919 1 BOITE DE CARTON		

COMMENTAIRES / comments

ATM HARDEN 1800°F - 1:30 HRS
DOUBLE TEMPER 400°F - 2:00 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification. All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

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Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

Ce document et les documents qui lui sont joints peuvent contenir des informations confidentielles, être soumis aux réglementations relatives au contrôle des exportations ou ayant un caractère privé. S'ils ne vous sont pas destinés, nous

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
337546	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

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APPROUVÉ par / Approved by:

DATE: 2019-07-03

Lucie Desmarais
QA Technician



METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
337546	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
HB043823	N/A	A2		

SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

VAC HARDEN

HARDEN AND TEMPER

DAS
61
9-89

EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
HARDNESS	58 - 62 HRC	30 (907)	58 - 60 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
30	12	646.3316 (30) 646.3316 JOB 194919 1 BOITE DE CARTON

COMMENTAIRES / comments

APPROUVÉ par / Approved by:

DATE: 2019-07-03

Pierre Piché
Chief Inspector



APPROUVÉ